AMENDMENTS TO THE CLAIMS

Please amend claims 16 and 29, cancel claim 33 and add new claims 39-43 as indicated among the following complete set of pending claims:

Claims 1-15 (previously canceled.)

Claim 16. (Currently Amended) A liquid catalyst delivery system comprising:

a liquid catalyst receptacle having an air inlet and an outlet; and

a catalyst transport for transporting catalyst particles in a sparging gas to a flame zone of a combustion process, the catalyst transport comprising:

a first sparging gas transport path coupled to the receptacle outlet and configured to transport sparging gas at a first rate; and

a second sparging gas transport path coupled to the receptacle outlet and configured to transport sparging gas at a second rate in response to an increase in demand for catalyst at the flame zone;

wherein the catalyst transport is configured to substantially maintain the first transport rate of sparging gas through the first sparging gas transport path when the second sparging gas transport path transports sparging gas at the second rate in response to the increase in the demand for catalyst at the flame zone.

Claim 17. (Original) The liquid catalyst delivery system of claim 16, wherein the first sparging gas transport path comprises a pump coupled to the receptacle outlet, the pump configured to pump the sparging gas from the receptacle outlet at the first rate.

Claim 18. (Original) The liquid catalyst delivery system of claim 17, wherein the second sparging gas transport path comprises a check valve configured to open to sparging gas flow therethrough in response to pressure on a side of the check valve exceeding a predetermined threshold pressure.

Claim 19. (Original) The liquid catalyst delivery system of claim 16, wherein the first and second transport paths join into a joined transport path configured to transport the sparging gas from the first and second transport paths, and wherein the second transport path is configured to transport catalyst only when vacuum pressure in the joined transport path exceeds a predetermined threshold pressure.

Claim 20. (Original) The liquid catalyst delivery system of claim 16, wherein the first rate is a variable rate.

Claim 21. (Original) The liquid catalyst delivery system of claim 16, wherein the second rate is a variable rate.

Claim 22. (Original) The liquid catalyst delivery system of claim 16, further comprising a catalyst transport control coupled to the catalyst transport and configured to regulate flow of sparging gas through at least one of the transport paths.

Claim 23. (Original) The liquid catalyst delivery system of claim 16, further comprising a catalyst transport control configured to monitor catalyst transport and relay catalyst transport information to a remote location.

Claim 24. (Original) The liquid catalyst delivery system of claim 23, wherein the catalyst transport information comprises an indication that a predetermined threshold of operation has been reached.

Claim 25. (Original) The liquid catalyst delivery system of claim 16, further comprising a mounting plate coupled to the receptacle and a vibration source.

Claim 26. (Original) The liquid catalyst delivery system of claim 25, wherein the vibration source comprises a pump.

Claim 27.(Original) The liquid catalyst delivery system of claim 16, wherein the receptacle comprises an air inlet opening positioned and oriented such that air bubbles released into a catalyst mixture in the receptacle from the air inlet opening do not contact a solid object before reaching an upper surface of the catalyst mixture.

Claim 28.(Original) The liquid catalyst delivery system of claim 16, wherein the receptacle comprises a chamber in communication with an opening in a wall of the receptacle, the chamber having a cross-sectional area larger than an area of the opening.

Claim 29.(Currently Amended) A method of providing catalyst to an air intake for a combustion process, the method comprising:

sparging air through a liquid catalyst mixture in a receptacle to produce sparging gas; and

transporting the sparging gas from the receptacle at a first rate before transporting the sparging gas from the receptacle at a second rate higher than the first rate when demand for sparging gas at the air intake exceeds a predetermined threshold;

wherein transporting sparging gas at the first rate comprises transporting sparging gas through a first transport path and transporting sparging gas at the second rate comprises transporting sparging gas through both the first transport path at substantially the first rate simultaneous with transporting sparging gas through a second transport path.

Claim 30. (Original) The method of claim 29, wherein the second rate is a variable rate.

Claim 31. (Original) The method of claim 29, wherein the variable rate corresponds to a vacuum pressure caused by air moving through the air intake.

Claim 32. (Original) The method of claim 29, wherein transporting sparging gas at a first rate comprises pumping the sparging gas with a vacuum pump.

Claim 33. (Canceled)

Claim 34.(Original) The method of claim 33, wherein transporting sparging gas at the second rate comprises opening a valve to allow sparging gas to be drawn through the second transport path by a vacuum caused by air moving through the air intake.

Claims 35-38 (previously canceled)

Claim 39. (Newly Added) The liquid catalyst delivery system of claim 22, wherein the catalyst transport control comprises a sparging gas flow restrictor coupled inline with the second sparging gas transport path.

Claim 40. (Newly Added) The liquid catalyst delivery system of claim 39, wherein the sparging gas flow restrictor is configured to establish a maximum flow rate through the second sparging gas transport path.

Claim 41. (Newly Added) The liquid catalyst delivery system of claim 39, wherein the catalyst transport control further comprises a second sparging gas flow restrictor coupled inline with the first sparging gas transport path.

Claim 42. (Newly Added) The liquid catalyst delivery system of claim 41, wherein the second sparging gas flow restrictor is configured to establish a maximum flow rate through the first sparging gas transport path.

Claim 43. (Newly Added) The liquid catalyst delivery system of claim 22, wherein the catalyst transport control comprises an electronic controller.